

US CLAIMS

1. Aircraft window comprising a cockpit structure, a window pane provided with a rigid frame, three-point guide means for guiding the frame with respect to the cockpit structure, means of locking / unlocking the frame with respect to the cockpit structure and a control device to control displacement of the window pane with respect to the cockpit structure when the locking / unlocking means are in an unlocked state, characterised in that the locking / unlocking means comprise an unlocking device supported on the control device (26).
2. Window according to claim 1, in which the control device is a handle articulated on the frame and the unlocking device is a button placed on the handle and elastically returned to a locking position.
3. Window according to claim 2, in which the handle is articulated on the frame about an approximately vertical hinge pin.
4. Window according to claim 2, in which the handle is free to pivot backwards on the rigid frame starting from a position in contact with the window pane.
5. Window according to claim 2, in which an unlocking indicator device is placed on the handle, the said device being mechanically connected to the button so that it projects outwards on the handle and is clearly visible when the button is in an unlocking position.

6. Window according to claim 1, in which the guide means comprise a top rail and a bottom rail belonging to the cockpit structure, a set of rollers that fits into the top rail and two other sets of rollers that fit into the bottom rail, the said sets of rollers being installed on the frame.

7. Window according to claim 6, in which there is a non-zero angle between the top rail and the bottom rail equal to not more than about 5 degrees.

8. Window according to claim 6, in which the guide means comprise means of absorbing deformations of the window pane.

9. Window according to claim 8, in which the means capable of absorbing deformations of the window pane comprise flexible parts of the top and bottom rails located facing each set of rollers when the window is closed.

10. Window according to claim 8, in which the means used to absorb deformations of the window pane comprise at least one compensation part articulated on the frame by a ball joint connection and supporting one of the said sets of rollers.

11. Window according to claim 10, in which the compensation part supports the set of rollers that fit into the top rail.

12. Window according to claim 10, in which the set of rollers supported by the compensation part comprises two external rollers for which the spindles are fixed with respect to the said part and a central roller placed non-symmetrically between the external rollers, the spindle of the central roller being free to move with respect to the said part, the first elastic means applying forces to the spindle of the central roller in a state offset from a plane containing the spindles of the external rollers.

13. Window according to claim 12, in which the compensation part supports a control device mechanically connected to the spindle of the central roller such that actuating the control device provides a means of bringing the spindle of the central roller into the plane containing the spindles of the external rollers, opposing the action of the first elastic means.

14. Window according to claim 1, in which the locking / unlocking means are capable of immobilizing the window pane with respect to the cockpit structure regardless of the position of the said window pane.

15. Window according to claim 14, in which the locking / unlocking means then comprise a rack fixed to the bottom rail and a ratchet mechanically connected to the handle, so that it engages with the rack when the unlocking device is released, to prevent any forwards movement of the window pane with respect to the cockpit structure.

16. Window according to claim 6, in which at least one of the sets of rollers comprises a wheel that can roll on the bottom of a first of the rails and two spherical rollers with rotation

axes perpendicular to the rotation axis of the wheel, placed on each side of the wheel and capable of rolling on not more than one of the sides of the said first rail.

17. Window according to claim 1, in which the control device supports a pin mechanically connected to the locking device, and the frame is fitted with a lock in which the pin fits to fix the rotational position of the control device when the locking device returns to its locking position and when the control device is in contact with the window pane.